

Electrical Characteristics (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I_{GSS}	$V_{GS} = \pm 25V, V_{DS} = 0V$	-	-	± 100	nA
Drain Cut-off Current		I_{DSS}	$V_{DS} = 600V, V_{GS} = 0V$	-	-	300	μA
Drain-Source Breakdown Voltage		$V_{(BR)DSS}$	$I_D = 10mA, V_{GS} = 0V$	600	-	-	V
Gate Threshold Voltage		V_{th}	$V_{DS} = 10V, I_D = 1mA$	1.5	-	3.5	V
Drain-Source ON Resistance		$R_{DS(ON)}$	$I_D = 3A, V_{GS} = 10V$	-	0.95	1.25	Ω
Forward Transfer Admittance		$ Y_{fs} $	$V_{DS} = 10V, I_D = 3A$	3.0	4.0	-	S
Input Capacitance		C_{iss}	$V_{DS} = 10V, V_{GS} = 0V,$ $f = 1MHz$	-	1400	2000	pF
Reverse Transfer Capacitance		C_{rss}		-	75	120	
Output Capacitance		C_{oss}		-	250	380	
Switching Time	Rise Time	t_r	<p>$V_{GS} 10V$ $0V$</p> <p>$I_D = 3A$ V_{OUT}</p> <p>$R_L = 100\Omega$</p> <p>4.7Ω</p> <p>$V_{IN} : t_r, t_f < 5ns, V_{DD} = 300V$ $Duty \leq 1\%, t_w = 10\mu s$</p>	-	25	50	ns
	Turn-on Time	t_{on}		-	40	80	
	Fall Time	t_f		-	20	40	
	Turn-off Time	t_{off}		-	85	170	
Total Gate Charge (Gate-Source Plus Gate-Drain)		Q_g	$V_{DD} = 400V, V_{GS} = 10V,$ $I_D = 6A$	-	56	110	nC
Gate-Source Charge		Q_{gs}		-	32	-	
Gate-Drain ("Miller") Charge		Q_{gd}		-	24	-	

Source-Drain Diode Ratings and Characteristics (Ta = 25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Continuous Drain Reverse Current	I_{DR}	-	-	-	6	A
Pulse Drain Reverse Current	I_{DRP}	-	-	-	24	A
Diode Forward Voltage	V_{DSF}	$I_{DR} = 6A, V_{GS} = 0V$	-	-	-2.0	V
Reverse Recovery Time	t_{rr}	$I_{DR} = 6A, V_{GS} = 0V$	-	460	-	ns
Reverse Recovered Charge	Q_{rr}	$dI_{DR}/dt = 100A/\mu s$	-	3.5	-	μC





